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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,580	08/20/2003	Viggo L. Norum	03191/000N040-US0	5203
7278	7590	11/10/2004	EXAMINER	
DARBY & DARBY P.C. P. O. BOX 5257 NEW YORK, NY 10150-5257			HO, HA DINH	
			ART UNIT	PAPER NUMBER
			3681	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/644,580	Applicant(s) <span style="float: right;">m</span> NORUM, VIGGO L.	
	Examiner Ha D. Ho	Art Unit 3681	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-6,9 and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is responsive to Amendment filed on 9/29/04. Claims 1, 2, 7 and 8 have been canceled, and claims 3, 4, 9 and 10 have been amended accordingly. Claims 3-6, 9 and 10 are currently pending.

#### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the reference signs, i.e., 32a, 33a, 40a and 41a, mentioned in the description, page 9, first paragraph. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to because: Figure 6, the reference signs 10a and 11a appear to be 10b and 11b respectively, and vice versa.

***Specification***

4. The amendment filed 9/29/04 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Figure 6 introduces new matter, for example, the pins 32 and 33 go through the shaft 2, and each pin has two ends inserted into the grooves.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takei (US 5,540,113) in view of Ouchi et al. (US 6,788,435).

Takei discloses in Figure 2 an actuator comprising:

a central actuating shaft (33) with a shift finger (31) and further comprising two sleeves (35 and 36) supported substantially concentrically on the actuating shaft (33) and arranged to be driven in mutually independent rotation about the actuating shaft (33), wherein two grooves (33a and 33b) of opposite helical pitch are arranged on the actuating shaft (33) and each of the sleeves (35 and 36) has at least one inward-directed guide pin (41) engaging one of the grooves (33a and 33b); two motors (59 and 60) driving the independent rotation of the two sleeves (35 and 36),

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each of the two sleeves being driven by one of the two motors;

wherein one of the two grooves has a clockwise helical pitch and the other of the two grooves has a counterclockwise helical pitch; the two grooves are arranged in adjacent axial sections of the shaft; and at least parts of the two grooves share an axial section of the shaft.

Takei does not disclose two reduction gear mechanisms, each being interposed between one of the two sleeves and one of the two motors.

Takei does, however, disclose two pulley mechanisms (56 and 57), each being interposed between one of the two sleeves (35 and 36) and one of the two motors (59 and 60). The pulley mechanisms act as speed reducers. Gear reduction mechanisms are a well known type of speed reducer, which composes pulleys and belt.

Ouchi et al teach that the reduction gear mechanism is composed of pulleys and belt (see col. 1, lines 49-55).

It would have been obvious to one having ordinary skill in the art at the time of the invention to define the pulley mechanisms of Takei being gear reduction mechanisms as taught by Ouchi et al since a reduction gear mechanism is a well known type of speed reducer, which composes pulleys and belt.

7. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takei in view of Ouchi et al. (US 6,788,435) and Black (US 5,704,250).

Takei in view of Ouchi et al. has been described above.

Takei in view of Ouchi et al. does not show each of the sleeves having an internal groove engaging with two outwardly directed pins on the actuating shaft.

Black discloses in Figure 3 an actuator comprising sleeves (54 and 56) having internal grooves engaging with outwardly directed pins (62 and 64) on the actuating shaft.

It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Takei by forming internal grooves on the actuating sleeves rather than external grooves on the actuating shaft as taught by Black in order to simplify the manufacturing procedure.

### ***Response to Arguments***

8. Applicant's arguments filed 9/29/04 have been fully considered but they are not persuasive.

In response to applicant's argument that *"A gear reduction mechanism such as, e.g., a worm gear mechanism is preferable to a pulley mechanism particularly in cases where the mechanism needs to fit into a compact space and the motors are not arranged coaxially with the driven shaft. The desirability of a compact arrangement is specifically emphasized in the specification paragraph"* on page 8, first paragraph. It is noted that the features upon which applicant relies (i.e., a gear reduction mechanism is a worm gear mechanism) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant further argues that *"the fact that Takei does not mention a gear reduction mechanism in spite of its advantages over a pulley mechanism clearly demonstrates that the use of a gear mechanism cannot be called obvious"* page 8, first paragraph.

Although Takei does not disclose a reduction gear mechanism, but Takei does disclose a pulley mechanism (56 or 57). Note that the pulley mechanism acts as a speed reducer, and a gear reduction mechanism is a well known type of speed reducer (see 06/29/04 Office Action, page 5, lines 4-6). The evidence of the fact that **the pulley mechanism is a reduction gear mechanism** is found in the reference to Ouchi et al'435, col. 1, lines 49-55.

### *Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

### *Communication*

10. Submission of your response by facsimile transmission is encouraged. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9326 for regular communications and (703) 872-9327 for After Final communications. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as

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well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see M.P.E.P. 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check. Responses submitted by facsimile transmission should include a Certificate of Transmission (M.P.E.P. 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to  
the Patent and Trademark Office on \_\_\_\_\_

(Date)

Typed or printed name of person signing this certificate:

\_\_\_\_\_  
\_\_\_\_\_  
(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and M.P.E.P. 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Ho whose telephone number is (703) 305-0738. The examiner can normally be reached on Monday-Friday from 7:30 A.M. to 5:00 P.M. Eastern Standard Time. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Mr. Charles Marmor, can be reached at (703) 308-0830. Any inquiry of a general nature or relating to the status of this application or proceeding should directed to the Group receptionist whose telephone number is (703) 308-2168.

HDH  
(703) 305-0738  
November 5, 2004

*Ho Ho*  
**HAHO**  
**PRIMARY EXAMINER**

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11/05/04